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NINE AND NINETY

*J. Ellsworth Gross.*

# The Photographic Times

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## LENS TALKS.

A Short Series Dealing with the Choice, the Use, and the Testing of a Lens.

BY C. H. CLAUDY.

*Part III—Using.*



HAVING an anastigmat is one thing. Making use of it is another. Any one can buy a canvas and paint and brushes,—it takes an artist to paint a picture. Certain advertisers have tried to convince the amateurs that it is all in the lens—that a good lens makes good pictures and a poor lens, poor pictures, and many a man making rotten pictures because he hadn't any knowledge of how to make good ones, has bought an anastigmat and then wondered why his pictures were worse instead of better.

I am not attempting to explain this kind of a mind. They are literally "too many for me!" I get some very amusing letters, and some pathetic ones, about lens troubles and people have a habit of wandering into my office with a woebegone air and a lens and asking me to make 'em whole again. Exactly as if I could open a hole in their heads and pour in the little knowledge necessary. There are only two sets of holes in your head through which lens know-

ledge can get to your brains—and one set is eyes and the other ears.

It is a very common thing for a man to buy a fast lens and raise merry and-so-forth with the maker because it hasn't the same depth of focus that some other lens of less speed he has been using possessed. And some of these people there is no doing anything with. They are so possessed with the idea that it is all in the lens that you cannot persuade them their own lack of knowledge of how to use it has anything to do with the matter at all!

I think if I had a man come to me with a new lens and ask me how he should learn to use it—I should tell him to pick out some landscape with plenty of foreground, and make half a dozen pictures of it at various stops, first focusing on the foreground and then upon the background, and observe carefully the results. He would find that there was one certain point, nearer the lens than the point of infinite distance, on which he could focus, with the least amount of diffusion before and behind this point. It is a good

thing to know,—this point, which differs with different lenses. It is called the hyperfocal distance. A somewhat more technical definition is as follows: the hyperfocal length of a lens, is the distance from the lens to the object, in which the lens will give sharpness of definition, according to the diameter of the circle of diffusion you will allow, when the lens is also focused upon infinity. In still other words, there is a point, when the lens is focused upon infinity, when the image commences to get fuzzy,—fuzzy meaning larger than the allowable diameter of the circle of confusion, usually one one-hundredth of an inch. If this point is known, and the lens sharply focused upon it, it will be the best for a picture which is to be sharply focused by stopping down with the desire to have foreground and background sharp. To get this distance for the lens you use, first square the focus, then divide by the sum obtained by multiplying the allowable diameter of circle of confusion—say  $1/100$  of an inch by the relative opening. Example, the hyperfocal distance of a lens of eight inches focus working at F6 is equal to  $8 \times 8$  (square of focus) divided by  $1/100 \times 6$ , or 1066  $2/3$  inches, the hyperfocal length of this lens.

By focusing at the hyperfocal distance the maximum depth at the stop used is arrived at—and it reaches from infinity to half the length of the hyperfocal distance. It increases, of course, with the diameter of the stop. The same lens stopped to F16 would give a different result. We then would have 64 divided by  $16/100$  or four hundred inches, as the hyperfocal distance and if we stopped to sixty-four, it would work out to 100 inches, or a trifle over eight feet, and anything from four feet in front of the lens to infinity would then be in equally sharp focus of a circle of confusion of  $1/100$  of an inch. Too technical? Well, a

lens is a technical tool, and you can't expect to get your money back if you don't use your head.

In using a fast lens, do not use its speed except for two things. One is to let in the most light in the least time—as in making snap shots,—the other is to diffuse the background or the foreground and throw them out of focus. Do not attempt to use snap shots where they are not indicated, and do not use a very large opening in a lens where a small one will do. Do not, for instance, try to make copies with a lens working at F4.5—not that it cannot be done, but any minute difference in registration of screen and plate—any depth to the painting on account of amount of pigment, will throw off the result and there is no reason why stopping down should not be resorted to under such circumstances. As a general rule a fast lens can be stopped down to good advantage for most work. The speed is there, when you want it—and when you want it, you want it very badly, but, like the gun you have in your bureau drawer, it isn't there to use all the time, but for emergencies

Don't attempt to make a really fast lens do the work of a slower one,—don't expect an F4.5 lens to cover a plate three sizes larger as an anastigmat of F6.8 or F7.7 does. The fast lens sacrifices covering power to speed—you are supposed to recognize this when you buy the lens and not demand of the lens that which is not in it.

You should not expect the fine optical corrections of a lens to show if it is badly mounted. With a lens stopped down you may tilt it at an angle with the plate and get good results. With a lens working at F5 or faster a plane and parallel condition between the ground glass and consequently the plate, and the plane of the diaphragm of the lens is



most essential. Many a view camera, perfect in all other respects is a little rickety on its pins when the extended bellows pulls back on the front board supports and tilts the lens. Then the amateur and anxious tryer of a new lens finds traces of what he fondly believes to be astigmatism, and howls at the maker for a perjured liar!

You cannot expect a fast lens, working at a large opening, to have very much flatness of field if the center is raised much above the center of the plate for which the lens is listed. If you want to sky your lens two inches in a five by seven plate—stop it down. If you don't, you will find no knowledge of hyperfocal distance will allow you to get things sharp all over and you may, if you know no better, damn the lens, and say "Smith's lens, which is an Umpty-Um lens will do this, why won't mine?" And the "Umpty-Um" lens, as every one knows is an anastigmat of extremely short dimension between glasses, with a very short focal length to the plate, great covering power, and consequently is made with a relatively small stop—say F6.3 or F6.8.

The focusing of a lens working at F4.5 is a delicate art. You cannot stick your head under the cloth and give a guess that is right and trust to depth in the cones of light to do the work as you can with a smaller stop. You must focus carefully and lovingly. And right here I want to say a word about focusing glasses. These little instruments are usually laughed out of court by the average amateur, because he truly believes his eye are quite good enough for focusing. But his eyes are no better than the depth of depression of the roughnesses of his ground glass, and if he will cement onto the middle of this ground glass a microscope cover glass, in which is a cross,—say made with a lead pencil, and will ex-

ample the aerial image on this transparent circle with a focusing magnifier, he will find it much easier to get a truly sharp image with a very fast lens, than can otherwise be done. Many a man damns a fast anastigmat because it does not focus sharply, as he says, when it is he all the time who has neglected to do the focusing with sufficient care.

This aerial image is the one made visible on the ground glass. It is hardly visible at all to the eye on the clear spot, but jumps into prominence with brilliant illumination at once with the magnifier. When the image and the cross are in focus with magnifier together the anastigmat is in focus.

Another cause of complaint is found by users of very fast anastigmats on film, in film cameras not made for the purpose. Film, in the larger sizes does not always lie as flat as it might do—certainly not as flat as a plate. Take any roll-of-film machine—how can one expect this tender, delicate material to have the same rigid plane-and-parallel-to-the-lens front that a glass plate has? Now the cone of light from an eight inch lens working at F8 is one inch in diameter at one end and tapers to nothing at the other. At F4 the base of this cone is two inches and the angle of the cone of light is doubled. Consequently the latitude of movement of the plane of the film or plate is one-half of what it is with the slower lens. A movement of a fraction of an inch does no harm with the slower lens—with the faster lens it will throw something out of focus. A very slight movement for a very small fraction of an inch with a piece of film in the camera, bending outwards or inwards will spoil the focus of a fast lens. This understand, is in cameras not originally designed to carry film and fast lenses at the same time. In some, I am told this difficulty is overcome. Nor

must this be construed in any way as an argument against fast lenses and films—it is merely an argument against expecting too much of the two in combination in large sizes.

You will see from what I have written that the management of a fast lens—an anastigmat with great light-passing capacity—is not a matter to be passed over as learned with the purchase of the lens. Nor have I covered the thousand and one tiny little points, hardly possible to speak of alone, but important as a whole. These are the things each one can find out for himself. But if you will learn to use your hyperfocal distance properly you will not have to stop down so much as if you do not use it, to get sharpness, and if you will take care of the adjustment of your lens, and the things which you ask of it be within its power it will yield you most surprising results. Always remember that in gaining speed you have sacrificed both depth and covering power

and do not demand of the lens what you have voluntarily relinquished when you made the purchase thereof. Think twice before you buy your lens, and buy from your knowledge, what you really need. It is my humble opinion that there are lots of F. 4.5 lenses bought which are useless to their buyers, and any maker will tell you that in spite of the higher price and greater selling ability of the high speed lens, he would rather sell you a lower speed lens for general work. This is because he is pretty sure you won't take the trouble to learn how to use it.

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NOTE.—I have repeatedly said to friends, both in public and in private, that I am willing to answer such questions as are within my power to discuss. But I have not the time to write a book to every inquirer. If you have one or two questions which you want to ask, and I know the answer, I am very glad of the opportunity to answer them. *Please inclose stamp for reply* and address me care of your editor.



*Dr. Walter Winchester*  
*THE LAST MOORING*  
(Third American Salon)



## HOME MADE SKIES.

BY WALTER WINCHESTER.



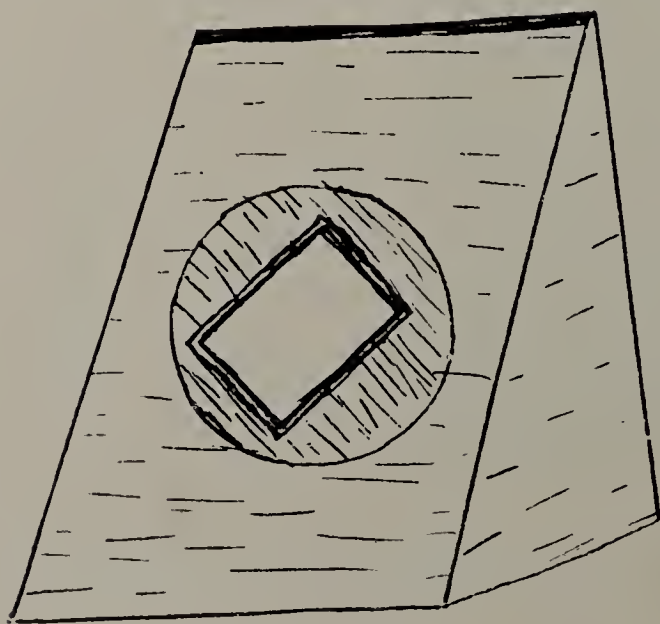
WHILE there are few amateurs to-day who would consider a "bald headed sky" permissible in anything but a record of fact picture one still sees print after print in which the sky is rendered by blank white paper, and if one may judge by the frequency of the phrase "spoiled by baldness of the sky" in the critics' columns of the magazines, there are still many, even among the more ambitious, who find it a difficult problem to avoid this fault in some of their best pictures. With ray filters and orthochromatic plates, correct exposure and dilute developer, it is easy to get more or less sky when it is there to get, but what shall we do when the absence of a tripod makes a ray filter impossible, or worse yet, when nature offers nothing better than barren blueness overhead, beautiful enough to the eye but unpleasant in a print? Wait till a day when the clouds appear and try again. That will do for those who have plenty of time, and the patience to make several trips if necessary, for clouds have a most provoking way of disappearing just when you are ready to take them—but how about the man who has but few days of his own, or who perhaps cannot come that way again? Let him make a lot of cloud negatives and print in skies when necessary, say the wise heads in the advice columns. Yes, that is one way—the best one perhaps when you want to make a single masterpiece, but it is not so easy as it sounds, and after a few trials you will probably reserve it as an honor only for your best negatives. I grew enthusiastic once and collected a nice lot of cloud negatives. Then I

devoted a day to printing them in on some landscapes. But let us draw a veil over the rest of that day. The next morning the lady who dusts my rooms and hides my belongings remarked as she looked into the waste basket, "And what is them?" I accepted her verdict and thoughtfully laid away a neat bundle labelled "cloud negatives." I knew it possible to print in skies on almost any medium, for I have occasionally succeeded since that unhappy day, but it means many spoiled prints even on the printing out papers, while on others, except to the experienced worker, it is a waste of time and money and a drain on photographic enthusiasm. Where an elaborate sky must be had it is perhaps the best way, but for the ordinary negative in which the chief interest is elsewhere, and only enough sky is needed to avoid baldness, there are other ways far more convenient and equally satisfactory.

Sunning down, by brief exposure of the upper portion of the print, thus producing a gradually deepening tone toward the zenith, is of some value as a cure for baldness, but a far more satisfactory method is to work in clouds on the back of the negative. Here they are permanent and will always print exactly alike without further attentions. The thickness of the glass gives sufficient diffusion to put the clouds in the distance where they belong, and if unsatisfactory they may be removed without damage to the film. They may be put into a sky which is covered with a net work of branches, and after some practice may even be made the main feature of the picture, as in a sunset scene. Of course, here it may be remarked that such faking

is not straight photography but the advocates of "straight photography for straight photography's sake" have dwindled rapidly in recent years, and the camerist of to-day, aiming only to obtain a pleasing picture, cares little whether the end is gained by soft focusing, retouching, or manipulation of print or negative.

To put in clouds successfully some sort of a retouching frame is at least a great convenience. Good work can be done by standing the negative against a window frame but a frame suitable for this and other hand work can easily be made by sawing a wooden box in two obliquely from corner to corner. Over the upright open back of the box paste a board sheet of thin white paper to diffuse the light. Cover the front with heavy cardboard, near the middle of which is cut an opening slightly smaller than the plate. Cleats to support the plate may be glued along the margin of the opening. The apparatus may be made still more convenient by cutting out a large circle with the plate opening at the center, and fastening a projecting margin to the back surface of the circumference of the circle to prevent the central cut-out from falling through. Thus by revolving the central circular portion, any desired posi-



tion of the negative can be secured. Daylight or artificial light behind the white paper screen gives excellent illumination of the negative. The accompanying diagram shows clearly the completed frame.

If the sky portion of the negative is so dense that it will not begin to print by the time the rest of the picture is fully out, it is advisable to reduce it somewhat, otherwise it will be necessary to shade the foreground while the sky is printing and this is rather inconvenient when many prints are to be made. To work in a sky, some coating which will take a pencil must be applied to the back of the negative. Where elaborate skies are desired papier mineral, a very thin transparent tissue paper, is most suitable. Dampen this and after removing the surplus water with blotters fasten it to the margins of the plate with glue. It is not essential to get the wrinkles all out, as when the paper has dried it will be stretched tight as a drum. Ordinary tissue, paper will hardly do for this purpose as it has a grain which gives a mottled appearance even when printed in the shade. Nor are the ground glass varnishes satisfactory, for they do not take the pencil readily and are easily scraped off. Real ground glass, while it takes the pencil well, is expensive and is likely by reason of its thickness to blur the clouds over the horizon or the tree-tops. The only other satisfactory medium is the ordinary retouching "dope" of the professional, a mixture of rosin, fir balsam and gum camphor dissolved in enough turpentine to give a syrupy consistency. A nickel's worth purchased at the nearest gallery will last for months. This method is very good for the majority of negatives and is the one which I use almost entirely. A drop of this "dope" is placed on the sky area and worked rapidly over as large a space as



it will cover by means of a piece of smooth lintless cloth drawn lightly over the end of the finger, using a circular motion and continuing as long as the dope will smear, and a little longer, to make a smooth surface. You can work on the surface with pencil or stump almost as well as on paper, and it has the advantage of being more transparent, easier to apply or remove, as well as its applicability to a limited area. A little alcohol on a cloth will remove it in a moment if the first attempt is not a success.

Having thus prepared the negative, sharpen a soft lead pencil and save the lead scrapings for pigment. Powdered plumbago or lampblack may be used, but both are likely to be lumpy. For broad work a stump such as charcoal workers use is preferable, the pencil being reserved for sharp outlines and high lights. A stump for experimental work may be made by rolling a piece of newspaper tightly to a narrow cone.

Having made these preparations, place the negative in the frame and consider what form of cloud would be suitable to the atmospheric conditions present, and from what direction the light is falling. To put a bunch of Maxfield Parrish cotton balls into a gray day picture, or to light the sky from the shadow side of the negative would be so obviously wrong that none would fail to detect the incongruity, but other only less glaring errors are often seen in attempts at combination printing, indicating that photographers might well devote a little time to the study of cloud forms and the atmospheric conditions producing them. It is not the purpose of this article to discuss this in detail, but a few suggestions may not be out of place.

In the first place do not make the sky too ostentatious. In the great majority

of instances a mere suggestion is sufficient. Fortunately this is the easiest form to put in after the method I have described, but it is apparently a hard one to print in from another negative, the temptation always being to choose something striking. An elaborate and splendid sky should accompany none but a very simple landscape arrangement, otherwise interest is divided, and the greatest essential of pictorial quality, *unity*, is lost. The composition of the sky should be considered as carefully as that of the landscape, lines and masses being arranged with due regard to balance and harmony with those of the landscape. This is easier to accomplish by working in the clouds than by printing them in, unless one has an enormous collection of cloud negatives to choose from.

Large cumulus clouds are to be avoided where the effect of distance is desired. They may be allowed to loom up behind large objects near at hand, and are then very effective. As a rule these large masses are seen on bright summer days and suggest stormy weather only when their bases are flat and dark and indistinct. They are out of place in most winter landscapes, as the cumulus cloud tends to the cumulo-stratus or stratus type in cold weather. The stratus type is characteristic of clear, cool, breezy days when scattered and white, if closely packed and dark along the base they suggest cold raw weather with wind and snow flurries or rain. The storm cloud is variable in its form, a dark bank with irregular masses and occasional wisps of white, preceded and flanked by outposts of the stratus type in winter, or the dark based cumulus in summer, is perhaps the most common type. Cirrus clouds belong to continued clear weather and are not often seen near the horizon. A diffused sunlight with slight haziness, ideal photographic weather, is

often seen with such clouds, which are hard to get in the negative but many easily be faked in. Lastly, it must not be forgotten that while clouds are sometimes entirely out of place, as on misty days blank white sky is never correct, a certain amount of tone should always be present, and usually slightly different at the horizon and zenith.

As to the technique of putting in a sky, little need be said. Lay in the body of the cloud with a few strokes of the stump, then put in the high lights with a sharper stump or a pencil, taking care however, if you use the latter, to make no distinct lines. If any faint suggestion of clouds is evident in the sky, emphasize and amplify this to the extent desired. A good method to get variety in cloud form is to place a good cloud

negative in the frame under the one you wish to improve, and with this as a guide work up a satisfactory sky. Print on rough papers preferably, and use diffused light or keep the frame in motion while exposing, lest too sharp definition bring the clouds out of the distance where they belong. Skill in drawing is not essential, and a little practice will enable anyone to put in clouds that cannot be distinguished from the real thing. In confirmation of this statement I might add that of several landscapes which I submitted to the jury of the Third American Salon, two had faked skies and the others real ones. Only the two with home made skies were accepted, one of them, incidentally being a sunset scene, in which of course, the sky is an essential feature of the picture.



*THE LAST GLOW*

*Dr. Walter Winchester*

(Third American Salon)



PINOCHLE

(Honorable Mention March Competition)

*William Armbruster*

## THE MONTHLY COMPETITION

**W**E are very much encouraged in the results of these competitions, as they are certainly increasing in interest and value. Aside from the steady improvement in the quality of the work shown, we are receiving a large number of letters from our readers in regard to the competitions and criticisms. We want all of our readers to follow these competitions, as whether actively engaged in competing, you will learn much of value from the work of the others. The mechanical part of photography is very simple nowadays, practically all of the problems have been figured out for you by the experts in the manufacturers' employ, leaving you almost

wholly free to devote your energies to the production of good pictures. In spite of this we do receive a good many photographs that are technically bad, suffering from under and over-exposure, badly printed and sloppily mounted. Now just what can we do to assist this class of amateurs—just how can we make them see the error of their ways. We cannot adequately reproduce their failures so as to show the imperfect and careless toning or developing of the prints, neither will the reproduction show fully the effects of the over or under exposure. The directions furnished with all photographic material are most explicit, written by men who know, and who realize that such instructions are to be read by





*EVENING LIGHT ON WET SNOW*

*R. E. Weeks*

(First Prize March Competition)



DOROTHY

F. E. Bronson

(Second Prize March Competition)

those who do not know and who must be instructed fully and simply. What is the trouble? Must we consider the amateur who turns out such faulty work deficient in gray matter, unable to understand and assimilate the instructions so generously given him—we think not. The trouble may be this: Many—no, most—beginners in picture-making have been lead to believe that photography has become be simplified as to be practically automatic and fool-proof, and that they may take any liberties they desire with the instrument and material, and not

even trouble themselves to more than merely glance at the instructions.

If your work is technically bad, *it is your own fault*. You are too lazy to study even the little required to enable you to do good work. Photography is simple, but you have got to study the simple things and when instructed to do or not to do certain things, follow your instructions and not take chances all the way through. For instance, if you are told that the temperature of a certain bath must be 70 deg. Fahr. and you work at 45 deg. or



THE LESSON

John J. Reilly

(Honorable Mention March Competition)

80. deg. can you expect good results? If you are told your toning bath must be slightly alkaline and you have it strongly acid, something will go wrong—and the fault is *yours*. If you are told that the grade of paper you are using should not be developed longer than fifteen seconds, and you allow it to remain in the developer for thirty—whose fault is it that you obtain those beautiful stains—*again yours*. If you are told to wash your prints for an hour in running water to thoroughly eliminate hypo, and you leave them five or ten minutes in a tray of still water—and “guess that will be enough” whose fault is it if the prints fade—yours. When you learned to shoot, play tennis, golf, or *anything*, you had to practise some and to *think* some—well you’ll have to do the same thing in photography if you want to succeed, and it’s worth it.

A good many of you will think, what’s all this got to do with me, don’t I receive an award occasionally, and don’t my prints get accepted by Salon committees.

Sure they do, but don’t be selfish, let us talk a little to the chap who hasn’t been succeeding, he wants to get in your class. All the foregoing hasn’t much direct bearing on the competitions, but indirectly it has, as we want Mr. Careless Man to wake up and later walk off with some of the prizes.

The First Award goes to R. E. Weeks, for his picture entitled “Evening Light on Wet Snow.” Whether impressionistic effects appeal to you or not, you must confess that his picture possesses merit, and is truly pictorial. The subject is one that could be secured almost any where, *if* you but selected the right time and did the few other little things necessary but here is how Mr. Weeks went about it. Taken in February, 1907, 4.30 P. M., Ross Lens f.5.6, Cramer Medium Iso plate, 1/5 second exposure, enlarged on Monox Bromide to eight by ten, and then transferred on Ozobrome.

The Second Award goes to F. E. Bronson for his interesting child portrait study, “Dorothy.” We wish to call your



*I WONDER HOW THEY BREATHE*

Donald E. Matheson

(Honorable Mention March Competition)

particular attention to the spacing and lighting, and to note just how much the one assists the other. Note please how the lower line of the dress enters the space just a little above the lower right hand corner, and the graceful curve leading up to the face and the highest light in the composition. The little subject has on a light dress, but see how carefully it has been subordinated to the face, the principal feature, yet in so doing, no value has been lost. You feel perfectly the color of the dress, and mentally thank the artist for not irritating you by making it so high in key as to overwhelm everything else. Again please note that the dress has texture all through, you know it is cloth soft and

fine, and not tin or stone. The flesh values are also excellent and detail is evident even in the deepest shadows, and yet the lens must have been used nearly wide open. This is a splendid subject for study. Made by light of ordinary window in January, 11 A. M., good light, quick cap exposure, Standard Orthonon plate, enlarged on Royal Bromide.

The First Honorable Mention goes to Donald E. Mattheson for his interesting child study "I wonder How They Breathe." The pose and expression may have been accidental, or with design, but in either instance the composition is good, and the picture of interest. The entire absence of pose and the expression of interest on the child's face add much to

*Interested**G. H. T.*

the pictorial value. The subordination of all unnecessary detail is to be commended and is one of the things so many amateurs forget in attempting subjects of this nature. Data, as follows: Negative made with 4 x 5 Screen Focus Kodak, 10 A. M. in July by light of an ordinary window, Standard Orthonon plate, stop U. S. 4, one second exposure. Enlarged on Bromide and printed on Ozobrome.

The Second Honorable Mention was awarded to Wm. Armbruster for his genre study, "Pinochle." Pictures of this sort are usually more or less commonplace, as they usually deal with commonplace subjects—but when skilfully handled can be made of considerable interest as well as of artistic merit. The difference in expression of the two old gentlemen helps the interest in this case, and the soft and even lighting keeps out the suggestions of quiet comfort. Data, Negative made in December, 1 P. M. lens wide open, exposure  $\frac{1}{2}$  second, Cramer Inst. Iso plate, printed on Angelo Sepia platinum.

The Third Honorable Mention was awarded to John J. Reilly, for his pic-

ture "The lesson." While from many points this subject is inartistic, it is still to be commended for its naturalness and human interest, and while undoubtedly posed, the posing has been exceedingly well done. If a little more foreground had been provided and the irritating series of straight lines in the background subdued, the picture would have been improved. Data, made in November, 1 P. M.  $1\frac{1}{2}$  second exposure, stop U. S. 32, R. R. Lens, N. C. Film, and printed on Angelo Black and White Platinum.

From among the unsuccessful entries we have selected these for criticism as they each have an important story to tell, possessing defects that could have been easily remedied, yet completely destroying the value as they now stand. Let

*PORTRAIT**J. L. A.*



us first take the entry entitled "Interested," by G. H. T. It is intended for a portrait study, yet can you examine this photograph without the eyes remaining fixed on the glaring white of the mat surrounding the picture the subject holds in his hands. Picture, collar and cuffs are a dead glaring white, miles higher in key than anything else, all you can see are these three white spots. The collar and cuffs should have been printed lower, or else reduced in the negative, and the picture with the white mat should never have been introduced.

Let us next take up the "Portrait" by J. L. A. and see what we can do to improve it. In the first place it possesses the same faults as the above mentioned, in that tone of the hands and of the white clothing is much higher than that of the face, the principal point of interest. Again the straight lines of the portion of the picture frame showing in the background, are obtrusive and irritating. Next is the spacing, too much space over the head, making the subject appear diminutive and insignificant. Lastly, the exposure was far too short, as there is no detail in the clothing and from the waist down, the man might be garment-

ed in either trousers or skirts, for all we can tell, and is practically floating in inky blackness.

In portraiture, subordinate everything to the face of your subject, give sufficient exposure to bring out the flesh values in the face, avoid harsh contrasts, and permit your subject to suggest something, other than the fact that he was just having his picture taken.

The third and last picture to be criticized, "A Frosty Morning," by E. J. T. presents some all too common errors in composition that could easily have been done away with. The trouble lies in the view point. In this photograph we have two distinct compositions, which is a violation of all rules of art. Just divide this subject vertically near the centre and on each side of the line you have a separate and distinct picture, either one of which could have been made pleasing. Again the straight lines of the fence in the foreground bring you up short and almost entirely prevent your gaze further in quest of interest or beauty.

Before you make an exposure study these questions fully—you will obtain more and better pictures by so doing.



A FROSTY MORNING

E. J. T.



# Editorial Notes

**T**HE amateur photographer truly interested in his work resents any time or season that cannot be devoted to his favorite recreation. There, however, do come times when, from strenuous weather or other conditions, there seems to be "nothing doing" in photography, yet there are always a dozen or more things photographic, and all interesting, that may be utilized at such times. The trouble is the amateur does not think of them, or if he does fail to attempt them, through his lack of special knowledge. For instance, take flashlight photography. Mr. Amateur may have attempted portraiture by this method, and produced nothing but grotesque caricatures of his subjects then he is *not interested* in flashlight work—good results cannot be obtained, etc. It is a fact, nevertheless, that excellent results may be obtained by flashlight as the sole illuminant, or in combination with daylight on the dark days. Special information on this subject has been prepared by the manufacturers of various flashlight compounds, telling just how to proceed, and it is yours for the asking.

Again for the dull times, there are many novel and interesting variations with developing papers, the producing of special tones by under-developments and other methods, double printing, special borders and the like. Here also the manufacturer will provide you with detailed information on just how to proceed.

Then there is one of the most fascinating of all processes, enlarging on bromide paper. A vast number of amateurs have never attempted enlarging—haven't the remotest conception of how it is done, yet any amateur who can make a good Velox print, can make equally good enlargements in an equally simple manner. If you don't know how, just ask the manufacturer of such papers; he has prepared full instructions, and is more than willing to supply you with them.

The foregoing was inspired by a recent conversation with an amateur who deplored the fact that there was nothing to do in photography except in summer time. In winter the weather was too cold for him to wander afield, and he had not attempted any of the above-mentioned processes. Have you tried Ozobrome he was asked. Throwing up his hands, he exclaimed, "Oh, dear me no, I really can't attempt those complicated processes." Yet when pinned down to it, he did not know what Ozobrome was, just took it for granted that because it was something new with a name that he couldn't associate with things in every-day use that it *must* be away beyond him.

This set us to wondering just how many other amateurs were in the same boat with him, and were denying themselves pleasures galore, simply because they wouldn't learn.

The advertising pages of every photographic journal contain a great amount of good, practical information, on just the subjects that interest or should in-

terest you. If Mr. Amateur had read the advertising section, he would have been posted not only as to the simple delights of Ozobrome, but likewise in regard to a great many other things that make picture-making pleasures a reality—for any and every time. Don't be afraid to write and ask the manufacturer questions, he isn't hedging himself 'round with impossible barriers, nothing would suit him better than to become acquainted with you *personally*, and to demonstrate his products to you—that's what he is in business for. The manufacturer has not lost sight of the fact that he must provide

something for every season in order to sustain the interest, and he has done so.

If you have been wondering just what to do, glance through the present, and some of the back numbers of the PHOTOGRAPHIC TIMES, and note the information, and offers of information extended you by the manufacturers. If you don't seem able to apply the proffered information just at the present, write for it any way—and sometimes just when you do want it, then it will be on your book-shelf waiting for you.

There are no photographic dull days, unless *you* make them so.

## MONTHLY FOREIGN DIGEST.

TRANSLATED BY HENRY F. RAESS.

### Self Developing Plates, by Dr. Reiss.

Several manufacturers are now making what are called "self developing plates," that is plates that require only plain water or an alkaline solution instead of a developer. Most of them have the necessary chemicals in a coating on the back of the plate. The following is a process whereby the photographer may prepare his own plates.

English.		Metric.
3 1/3 ozs.	Water	100 c.c.
1/3 oz.	Acetone Sulphite	10.0
15 grains	Hydrochinone	1.0

The plates are placed in this solution for two minutes and dried. To develop they are put in a three per cent. solution of potassium carbonate. With the above mixture plates lose half of their sensitiveness. By reducing the amount of sulphite by one half the plates do not keep so well, but they lose very little in speed.—*Photographische Rundschau*, Vol. 21, No. 2, 1907.

### To obtain Proofs Quickly, by Dr. Hauberisser.

This method may prove useful to those who make postals, "while you wait," or in fact wherever a print is required in a hurry. After developing, the negative is placed in a 5% potassium metabisulphite solution for one or two minutes. This bath immediately stops the action of the developer, and prevents its oxidation. The plate is then well rinsed in running water for thirty seconds to one minute. While the plate is washing, soak the paper or card in water, then bring it in contact and expose. The exposure needed is somewhat longer than usual. The plate may be fixed at any convenient time.—*Wiener Mitteilungen*, No. 173, Oct., 1907.

### Toning Over-Printed Aristo Papers, by G. Baille.

It frequently happens when one is busy, to forget a frame and leave it in



the sun too long, causing a loss of time and material. The photographer need no longer throw prints of this kind away as they may be readily toned by a method discovered by the author accidentally. Prepare the following solution:

English.		Metric.
	Solution A.	
8 ozs.	Pure Water	250.c.c
15 grains	Gold Chloride	1.0
	Solution B.	
8 ozs.	Water	250.c.c.
1½ drams	Sulphuric acid	5 c.c.

For use take A and B and 10 c.c. (1/3 oz.) and add 100 c.c. (3 1/3 ozs.) of water. The brown prints soon change to sepia, then violet, and finally to a pure violet color. After fixing the prints become more brilliant.—*Photo-Revue*, No. 20, Oct., 1907.  
—*Photographisches Wochenblatt*, Vol. 33, No. 44, Oct., 1907.

Toning Prints and Slides Red or Blue,  
by R. Namias.

The copper ferrocyanide method for toning bromide prints a brick red was originated by the author. Prints toned by this process gradually become darker. The author investigated the cause and found that some of the silver remained in the print producing a change in the color. This trouble has been removed by having a second bath which converts

any remaining silver ferrocyanide into chloride and removing the latter with "hypo." The new method is as follows:

No. 1	Copper sulphate	10% solution
No. 2	Sodium Citrate	10% "
No. 3	Potassium ferricyanide	10% "
For use take,		
English.		Metric.
20 ozs.	No. 1	600 c.c.
9 ozs.	No. 2	280 c.c.
2½ ozs.	No. 3	70 c.c.

Immerse the prints and allow to remain until they are a deep red, then place in

33 ozs.	Water	1000 c.c.
1⅔ ozs.	Copper sulphate	50.0
⅔ ozs.	Sodium chloride	20.0
⅓ ozs.	Hydrochloric acid	10 c.c.

In this bath the color becomes stronger and in about five minutes the prints should be removed and washed for some minutes, then placed in a 10% "hypo" solution. Prints so treated do not change in color or fade in sunlight. If one prefers blue prints to red, proceed as follows: Place the prints in a mixture of 5% potassium ferricyanide and 5% ammonium hydroxide, then put them in a solution of 1% ferrous chloride and 2% hydrochloride acid. After slight washing, place the prints in "hypo" for a few minutes. The above method can be used for all kinds of bromide or "gas light" papers and lantern slides.—*Photographische Korrespondenz*, May, 1907.

A COMBINATION PRINTING BOARD.

BY PAUL L. ANDERSON.



LOOKING over the October number of the TIMES I noticed a description of a "multiple-gum" printing device, and it occurred to me that someone might be interested in a very simple little arrangement devised

for combination printing, dodging, and miscellaneous faking of prints. Believers in "straight" photography are requested not to read this description, for they would probably call me an adherent of the "brush-and-hot-water school" This device is not suitable for multiple-

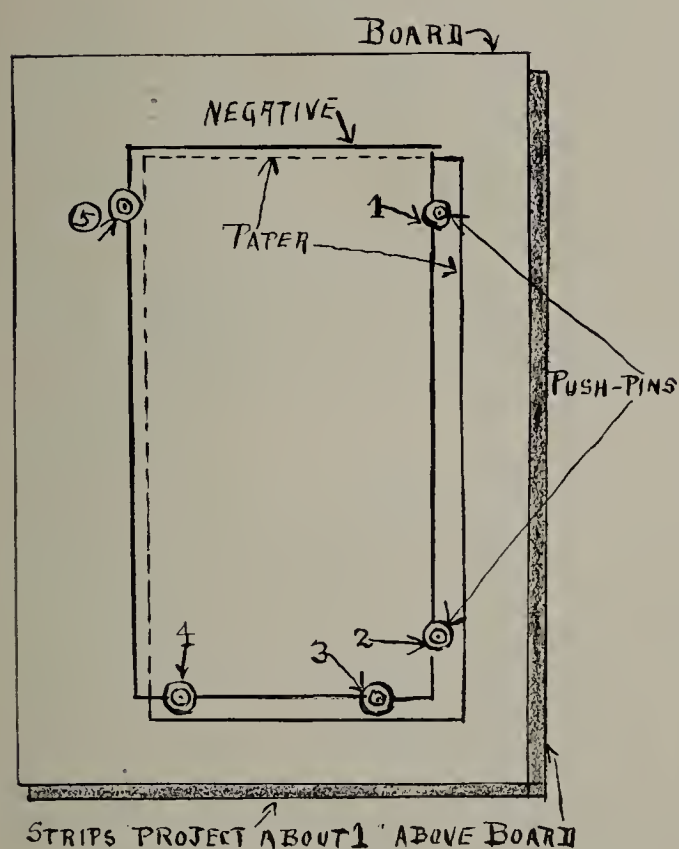


gum work or for platinum-and-gum, owing to the tendency (mentioned in Mr. Macnamara's article) of papers to change size when wetted and dried, but when the printing is all done before development it will be found satisfactory, and can be constructed of materials found in any well regulated household.

The materials required are:

(1) A board about two inches larger each way than the negative to be printed from.

(2) Five Kodak push-pins.



Referring to the sketch, the method of operation is thus: place printing-paper face up on board, lay the negative on it, film side down, letting the paper project about  $\frac{1}{8}$  inch on one side and end. Then fasten paper to the board with four push-pins, (1, 2, 3, 4, in sketch) being careful that the shank of each pin touches the glass and that pin is driven in far

enough to hold the negative and paper in contact but not far enough to crack the glass. Personally, I use two or three thicknesses of blotting-paper under the print and put on each pin a disc cut from a rubber lead-pencil eraser. Then place pin number 5 in position and set the board out to print. When the first printing is finished (the print can be examined by removing pin number 5 and raising negative, the other pins insuring registration when it is replaced) the first negative may be removed and another one substituted, the four pins holding the print in position during this operation. If it is desired to dodge the print, the board should have two strips about one inch wide (which may be cut from a cigar-box) tacked on one side and end. Cardboard or paper masks may be cut and pinned to these strips, when it is easy to locate the shadow of the mask. If the second negative does not register accurately with the first a small strip of cardboard, cut beforehand, and placed against either the first or second negative, to hold it away from the pins, will adjust the registration. Care should, of course be taken to see that the negative is not liable to slide off, and that the joint between cardboard and glass does not print a line on the paper.

If it is desired to mask the centre of the print, leaving the edges darker, cut the mask from cardboard, cut a disc from a cork, and fasten to a piece of plain glass with paste. This will sun-down the sides of the print, but if progressive and uniform darkening from the centre out is wanted, a dab of ultramarine paint (oil) spread over the back of the negative is best. A little ingenuity will suggest many other ways in which faking may be indulged in.

One advantage of this device is that it permits examination of the entire print at once, sometimes a great convenience.

EIKONOGEN FOR WARM TONES ON GASLIGHT PAPER.

BY LAURENCE GROSE.

**E**IKONOGEN is a developer that may be said to have gone out of date somewhat, and it is used comparatively seldom for negatives, and very seldom indeed for bromide or gaslight papers, owing to some fancied unsuitability. It is probably not generally known that it is an excellent developer for warm tones on gaslight papers; and, in fact, it was only after trying almost all other developers for the production of warm tones by direct development that the writer was led to employ eikonogen, which he then found to be more suitable for that purpose than most others, and a very long way indeed in advance of the majority.

The developer originally employed was a single solution formula, intended for ordinary negative work, and was of the following composition:

- Eikonogen ..... 150 grains
- Sodium sulphite (crystals). 1½ ounces
- Potassium carbonate ..... ½ ounce
- Water, to ..... 12 ounces

This is an excellent developer for plates, but it is a failure if used for bromide or gaslight paper. But this, which is the working solution for plates, may well be used as the stock solution for gaslight paper, employing it in the manner set forth below.

NO. 1. FOR BLACK OR GREY-BLACK TONES.

The following solution will give a good grey-black tone on some makes of gaslight paper, and a warm black on others. The exposure is the normal one, and development is perfectly under control.

- Stock solution ..... 1 ounce
- Water ..... 2 ounces
- Potassium bromide solution (ten per cent.)..... 10 minims

NO. 2. FOR RICH SEPIA TONES.

The exposure required for this developer is eight times the normal. A satisfactory method of making the exposure with an average negative is to burn an inch of magnesium ribbon at one foot from the printing frame, but, of course, no hard and fast rule for exposure can be laid down. The development is well under control, and occupies usually about two minutes.

- Stock solution ..... 1 ounce
- Water ..... 4 ounces
- Potassium bromide solution (ten per cent.) ..... 40 minims

NO. 3. FOR PURE RED-BROWN TONES.

The exposure in this case is twelve times the normal, or an inch and a half of magnesium ribbon burnt at one foot from the frame. The development occupies from two to three minutes.

- Stock solution ..... 1 ounce
- Water ..... 3 ounces
- Potassium bromide solution (ten per cent.) ..... 80 minims

NO. 4. FROM RED-BROWN TO RED CHALK TONES.

The following developer will be found to give from red-brown to red-chalk tones on most gaslight papers, the exposure being the same as for No. 3. Development takes from three to four minutes to complete.

- Stock solution ..... 1 ounce
- Water ..... 3 ounces
- Potassium bromide solution (ten per cent.) ..... 80 minims
- Liquid ammonia (.880 deg.).... 30 minims

Success in work of this kind depends on several conditions, especially on the following: (1) The negative must be a good one, that is to say, it must be one which will give a good black and white print; if it will do this, it will give a good warm toned one. (2.) The used



developer must be thrown away, and the print washed slightly between development and fixation. (3.) The warmer the tone desired, the longer not only will be exposure, but also the time taken in development; until for the red chalk tones the time will seem to be positively excessive. There need be no fear of staining, or even of a veiling of the highlights, as all these particular developers are singularly free from this defect, and give a scale of gradation remarkably good for a warm-toned image. (4.) The warmer the tone that is desired, the more must the print be over-developed, or, at least, it must appear to be so. For black prints there is no over-development necessary, for there is no loss of density in the fixing bath; but with warm-toned prints the case is different. Let this be borne in mind—the warmer the tone obtained, the greater the loss of vigor in the fixing bath. To prevent getting weak and sickly prints, therefore, we must, apparently, over-develop when aiming at warm tones.

A more serious drawback than this loss of density is the loss of quality—that is to say, the degradation of the richness and color of the print which takes place when it is immersed in the fixing bath. What may once have appeared to be a

brilliant red-brown print becomes of a disagreeable orange color immediately it is placed in the hypo. This can be obviated to a very great extent by the use of an acid fixing bath, such, indeed, as is recommended with almost all gaslight papers. In this the prints are subjected to a somewhat prolonged fixation, during which they will be found partly to regain their lost quality. But a great improvement will be found to take place in the process of drying; so that when this is complete the standard of tone will almost be equal in quality to what it was before the print was put in the fixing bath at all.

A last consideration is that of the make of the gaslight paper itself. Experiments show that, while all are capable of being developed in this manner, different papers behave in different ways under the same treatment; some take more kindly than others to development for warm tones. For instance, while one make of paper will develop to a rich red-brown, another will barely give more than a cold sepia. The writer has experimented on some half-dozen well-known brands of gaslight paper, but what is true of one is true of all of them, namely, that, treated in this way, they left very little to be desired—*Photography*.

## SOME NOTES ON OZOBROME.

BY E. J. WALL.



ERR OTTO SIEBERT has given some practical hints on this process which may be useful. It is advisable not to exceed, except under special circumstances, two minutes' immersion in the pigmenting solution; this, as a rule, is sufficient for even vigorous silver prints. Immer-

sion for three or four minutes will give more vigorous ozobromes, but it often causes complete insolubility of the gelatine. Shorter immersion is insufficient to completely bleach the silver in the deep shadows.

If the pigment tissue has a tendency to roll up in the sensitizing bath, it can be prevented by immersion *for one minute*



in water at 60 deg. Fahr. Then the bleaching solution should be rather stronger or its immersion be increased for half-a-minute. An important point is to avoid air bubbles in squeegeeing the print to the tissue, and it is preferable to place the tissue on a sheet of glass and then squeegee the silver print down. The following gives a brief *résumé* of the modifications advisable:—

Character of Silver Print	Strength of Ozobrome Solution	Duration of Immersion
Vigorous, slightly hard	1:3	2 (1½)
Vigorous, but good half-tone	1:4	3 (2)
Normal	1:5	2½-3 (2)
Flat, weak in the shadows	1:6	4-5 (3-4)

The figures in brackets in the third column give the time of immersion when the tissue is immersed dry; the others apply when the tissue is soaked first in water for one minute.

If, after the use of a strong solution, e.g. 1: 3, and long immersion, three minutes, the ozobromes are weak, then it is advisable to harden the silver prints in alum solution for two minutes, then to drain and immerse the pigment in the ozobrome solution for two minutes. This gives fine, clean and soft prints. The same result may be obtained by adding five parts of a 10 per cent. alum solution to 100 parts of a 1: 6 ozobrome solution. Faint fog that is insoluble or dirty skies and patches can be

removed by rubbing with a tuft of wet cotton wool, but pressure should not be used.

As a rule, 15 minutes contact is sufficient, but if the prints are kept damp, the time may be prolonged even to twelve hours and good results be obtained. With very hard and old prints with which the half-tones tend to frill, it is advisable to soak them for 15 minutes in a three per cent. solution of acetic acid for 10 or 15 minutes and then wash for 15 minutes and again immerse in a three per cent. solution of alum and again wash for 15 minutes. This gives ozobromes quite equal to a new print. It is advisable to brush the surface of the print repeatedly whilst it is in the acetic acid and to prevent the formation of air bubbles.

If an ozobrome is wanted in a hurry, the fixation of the print can be omitted. It is only necessary to immerse the print after slight washing in an alum solution for 10 minutes and wash for 10 minutes and then proceed as usual. This method is particularly suitable for collodion or gelatine P.O.P. prints.

P.O.P. and gaslight prints give, as a rule, softer prints than bromides. Apparently, the vehicle of silver salts has but little effect on the final result, as matt collodion prints give excellent ozobromes. P.O.P. prints must be carefully washed, then fixed and again well washed, *but must not be toned.*—*The Photographic News.*



## A DEALER ON AMATEURS.

BY A. W. BROMLEY.



ALMOST every photographic dealer is a more or less enthusiastic amateur. Naturally therefore, he becomes an unpaid expert adviser to his customers. Very few dealers object to this, provided the people who ask for advice are actual customers and they do not encroach too much upon his time.

A few words about the different amateurs one meets in the course of business may be interesting, and perhaps instructive. The man who is fastidious *because* he is a bad worker is a curious psychological study, but a very common type. He is slovenly or careless, and most of his results are failures. Of course he will not admit, even to himself, that the fault lies with his method of working. If he buys his solutions, he blames them; if he prepares them himself, he blames the plates, and tries another brand. Gradually he develops an attitude of extreme fussiness towards all photographic requisites. For him there is only one plate good enough—the make with which he happened to get a few decent results. He is also very particular about everything being “quite fresh.”

An incident contrasting the fussiness of the raw amateur with an expert's absence of fussiness occurred a few months ago. A small seaside dealer had in stock a packet of plates of an unusual size, which he knew to be at least three years old. About half a dozen amateurs declined to accept the plates when told how long they had been in stock. Then a man, whose name is well-known in photographic circles, happened to call at that shop and ask for that particular size of plate. “I've only one packet, and

they're over three years old,” he was told. After examining the much-rejected packet of plates carefully, he said, “These plates are at least five years old. I can tell by the printing of the label.” He bought them, and a few days later developed them in the same shop. “I shall make at least £5 out of that packet of plates your customer wouldn't buy,” he announced as he showed a dozen good negatives.

A certain number of people lack a sense of the fitness of things, and a few of them are amateur photographers. Among these are the people who go for advice to a shop where they do not deal. The man who buys a camera in the city and then asks a dealer near his home to explain its use is a bad example of this class. But there are others worse than he. A man once went into a suburban shop and said, “I see you sell photographic materials, so I suppose you know something about photography. Can you tell me what is the matter with these prints?” The prints were examined and discussed, and the dealer was profusely thanked for his courtesy. “I buy everything I want in the city,” said the grateful one. “I like to have things fresh. I knew you wouldn't mind answering a little question like that.” Fortunately there are not many of his stamp, or shopkeepers would have to put over their doors, “This establishment is open for the purpose of doing business.”

Very amusing is the amateur “who puts on side.” He may or may not be an expert, but in any case he talks much bigger than he is. He delivers lectures on photography in the shop, and advises the dealer how to conduct his business. “You should stock So-and-so's plates,”



a brand never asked for. This gentleman always has prints from his best negative in his pocket; but, of course, they are not his best. Oh, no, the best are at home. Years ago, when I was younger and more easily impressed than I am now, a gentleman called and asked to look at a camera. He was shown the one referred to. "Is it a Beck lens?" he asked. "Let me see." He opened and looked through it. "No, I see it isn't," he said. It was not, and I felt that I was privileged in meeting an expert in lenses. A very little reflection, however, convinced me that neither he nor anyone else could recognize a lens in that way. In a subsequent conversation he gave himself away completely; he was not an expert in lenses, neither was he in anything else connected with photography.

It is inevitable that a hobby which develops enthusiasts also develops bores. Of course, it is a pleasure to listen to an enthusiast who is an expert, and can show work possessing merits beyond those of correct exposure and development. But there are enthusiasts who are not producers of artistic photographs, and who have a great deal to say that

is not worth saying. There are three kinds of enthusiasts—the expert, the man who realizes that his enthusiasm may be a nuisance to other people, and the bore. We cannot all be of the first kind, but we can all avoid being of the last.

Just a word for faddists. Every dealer could make a list of the leading plates and papers in the order of their popularity. If you ask a dealer for a brand he does not keep, be sure you are in a minority in your preference. You may have good reasons, but, at any rate, the majority are not with you. My experience of amateurs is that the more expert a worker is, the less violent are his prejudices. An expert has preferences, but he does not waste more time and shoe-leather upon them than they are worth. Also, don't exaggerate the importance of freshness. I have known an amateur decline plates because they were a month old! All the best makes are good for four or five years, and I have seen excellent negatives from plates nine years old. Remember, unless you are a stranger living miles away, a dealer would much rather sell you nothing than something that is not satisfactory.

—*Amateur Photographer.*



*Charles Reid.*



# Notes and Extracts

INTERNATIONAL PHOTOGRAPHIC EXPOSITION, DRESDEN, 1909.—The International Photographic Exposition, at Dresden, which will be open from May to November, 1909, is the most important photographic exposition which has ever been projected. It will be held under the patronage of the Kingdom of Saxony and the City of Dresden, and no effort or expense will be spared to make it a complete representation of the progress and importance of modern photography.

The Exposition will be held in the great Exposition Palace and Park to the City of Dresden, one of the largest art galleries in Germany. The use of it has been donated by the city. This gallery is large enough to accommodate four or five thousand paintings, and the whole of it will be devoted to the hanging of the professional and amateur photographs sent in from every country in the world.

All of the important photographic manufacturers of the world will exhibit their products in buildings to be erected in the Park. Among them will be a complete Astronomical Observatory constructed by one of the large lens firms; half tone engraving and printing plants; and other technical exhibits of the highest value.

Especial attention will be devoted to both amateur and professional photography. To this end Commissioners have been appointed in every country in the world, who will make special collections. American professional photography will be represented mainly by the collection which has been made in the past few years by Rudolph Dührkoop, of Hamburg, to which, however, important additions will be made.

The collection of American amateur photographs will be made by Frank R. Fraprie, Editor of *American Photography*. He has been appointed American Commissioner, and he will also assist Herr Dührkoop in completing the collection of American professional photographs.

The Photo-Secession will exhibit as a whole,

and will have a special room for their collection.

An English announcement will shortly be ready, and may be obtained by any intending exhibitor from Frank R. Fraprie, 6 Beacon street, Boston. Any request made to him for fuller information will be promptly answered.

\* \* \*

CONTROL IN PLATINUM PRINTING.—The pictorial worker who eschews gum and the oil printing process often says he does so because he wants a process which will give him two or three prints alike. So he falls back on carbon, platinum, or bromide. Yet it is very doubtful if even in these processes he does get two prints alike if he is modifying his methods in any way so as to produce work of an individual character. Given a negative suited to the particular process, a number of prints may be produced all alike if the photographic process is left purely automatic. The results, however, are often very mechanical.

## THREE KINDS OF CONTROL.

In the platinum process there are, broadly, three kinds of control possible—control of strength or contrast, control of color of image, and control of actual values. The process gives this advantage: that progress in the use of control methods may be gradual and tentative, the worker proceeding by easy steps. He thus feels his way cautiously, while such a process as gum is a veritable leap in the dark. There is little doubt that plain, straightforward platinum printing is the simplest and easiest of the printing processes, and with this simplicity there is at the same time permanence and artistic effect. The addition of various substances to the developing bath, the use of paper in different conditions, and so on, constitute slight changes, and do not introduce any high degree of uncertainty. The simplest control method consists in varying

## THE TEMPERATURE OF DEVELOPER.

The neutral oxalate of potassium, 4 ozs.; water, 24 ozs., which constitutes a perfectly

effective developing solution, should be used at a temperature of about 60 degrees Fahr. If colder than this, development is slow, and the print has a granular appearance which is unpleasant. The delicate gradations in the high lights are often lacking, possibly because the platinum salts are partly dissolved before any reduction of them takes place. If, however, the temperature of the developer is raised considerably, say to 100 degrees Fahr., two effects may be noticed: the contrast of the print is slightly softened and the color of the deposit appears warmer. With certain papers this "mellowness," which is so desirable from a pictorial point of view for many subjects, may be still further increased by the use of old paper which has become slightly deteriorated by damp, or even by long keeping apart from damp.

#### INCREASE OF CONTRAST.

When a negative is almost strong enough to give the effect desired it is a very risky thing to intensify it, the danger of getting a hard result being considerable. Printing in a weak light may be restored to, but is apt to be tedious, and is often insufficient. In the manufacture of platinum paper it is usual to add to the iron and platinum salts a little of some oxidizing agent, chlorate of potash being generally used, which gives vigor to the print. An oxidizer may be added to the developing bath, however, and the most convenient salt is potassium bichromate. To 10 ozs. of the oxalate developer 50 minims of a saturated solution (at normal room temperature, say 60 degrees Fahr.) of bichromate is added, and the increase of contrast of the print is noticeable. Where advantage is being taken of this method it is necessary to print considerably stronger than for ordinary development, or the print has a washed-out appearance. The amount of bichromate added may be varied from 50 minims down to 2 or 3, and an experiment or two will soon show how much is required to give the desired effect, starting naturally with little, and increasing as may be necessary.

#### MODIFICATION OF COLOR.

Apart from the regular sepia papers manufactured by the Platinotype Company, which, developed with their special salts, give a rich warm sepia, it is possible to get warm colors with ordinary papers by the addition of mercury bichloride to the developing bath. Here,

again, some little experiment is necessary, for an addition which would give a quite satisfactory result with one subject might not answer for another. The following will be found a good starting point:—Add to 10 ozs. of the oxalate solution  $\frac{1}{2}$  oz. of a solution of bichloride of mercury (1 oz. in water 40 ozs.) Probably the color of the developed print will be a warm black, and as the proportion of mercury is increased the color becomes warmer. The best effects are obtained when a warm black only is aimed at, and many very fine platinotype prints developed in such a bath may be seen at the leading exhibitions. The mellow effect is suitable for some portraits, and especially for interior architecture.

#### FOR A DISTINCT SEPIA

the most satisfactory formula is that of C. F. Inston, which is as follows:—

A.—Potass. Oxalate.....	2 ozs.
Water .....	14 ozs.
B.—Potass. Citrate .....	150 grains
Citric Acid .....	240 grains
Bichloride of Mercury ..	90 grains
Water .....	14 ozs.

Take an ounce of each of A. and B., warm to about 80 degrees Fahr., and, placing the print face upwards in a clean and perfectly dry dish, pour the developer over it. When fully developed pass into a hydrochloric acid bath of the strength of 1 in 200. In all cases where mercury is employed for the production of warmer colors it is necessary to keep the acid baths a good deal weaker than the normal 1 in 60, or the lighter tones of the print appear to be reduced in strength, or even eaten away. These warm black or brown prints sometimes have a lack of brilliance or richness in the shadows which is often remedied by the use of some encaustic paste. This, however, is liable to give too much gloss, and that not always very even, and such prints held in the hand have not so satisfactory an appearance as when under glass in a frame. Sizing the print gives a richness and strength to it without any very pronounced shine—in fact, the surface appearance may be described as sheen. After the print has been washed and dried it may be immersed in gelatine 1 oz., water 20 ozs., thymal 5 drops, which should be hot and quite fluid, so that when the print is lifted out and pinned up by one corner the superfluous gelatine solution will rapidly drain off. This sizing should be done in a warm room,



or the gelatine may slightly set before draining is complete.

The third kind of control—control of values—must be left for future consideration.

—*Photographic News*.

\* \* \*

CLOUDS, BY JOSIAH TRUSTHORPE.—When the use of orthochromatic plates and light filters for landscape purposes began to get usual, there were people who foretold that the old-fashioned methods of printing in skies by double printing would disappear or, at least, would no longer be used by the leading workers. Time has not shown this prophecy to be correct. The trouble is that it is so seldom that the sky we want is to be seen with the view we want. We may get the two separately over and over again, but to get them together means a degree of good luck that is almost uncanny.

It is unsafe to speak much without the book, but one cannot help assuming, in some of the exhibition work shown during the last winter, that the clouds and landscape were on the same plate, from the very fact that had the photographer been printing in clouds he would have been able to use forms that would have helped his composition more.

It is too much to assume that, because we are using a perfectly adjusted orthochromatic plate and light filter, therefore we shall get the clouds in their true values. We may, under exceptionally favorable circumstances, but are not likely to do so often. This is not from any failure of the plate in color rendering, but simply because, if we are to expose long enough to get the foreground shadows properly, the sky will be over-exposed. We can remedy this to some extent with blue sky by using a very deep screen, but as this over-corrects the landscape we are no better off at the finish.

What, then, is the photographer to do if he finds that he has a landscape ready furnished by nature with suitable clouds? If he has got ordinary plates and no light filter, he cannot hope to do much, but he can do a little. The best plan is to stop down as much as possible, so as to bring the exposure within a manageable period—say three or four seconds, if this can be done. This means  $f/45$  or  $f/64$  with no very fast plate, while if the plate is a fast one we must even do the best we can. The exposure is made with the cap, and during the time of exposure the cap

is held close in front of the lens, but not touching it, and is moved up and down, so that at its highest the bottom of the curve of the cap is just above the hood of the lens, and at its lowest it is about two-thirds of the diameter of the lens down, leaving only the lower third uncovered. This is a severe measure, and when foreground shadows extend right up against the sky it cannot be employed, but in any other case it will be found that quite a lot can be done towards keeping the clouds in this way.

If the photographer has a color sensitive plate and light filter, he may still do this shading with advantage, and will find it easier to accomplish because of the way the screen prolongs the exposure.

Over-exposure must be guarded against, because this it is which causes the clouds to get blocked up in an unprintably dense sky.

The concurrence of a suitable sky with the landscape is sufficiently unusual to justify the expenditure of more than one plate. If one, then, is used as described, a second may be exposed for the landscape only, disregarding the sky, and a third for the sky only, disregarding the landscape. As the two latter are to be used together for double printing, it is of the greatest importance that the camera is not shifted in the slightest between the two exposures. When these last two are developed, we shall find that the landscape will print with a white sky. The cloud negative must then have the whole of its landscape portion carefully blocked out on the film, and is then adjusted on the print, and the sky is printed in. For blocking out, I prefer to use a strong solution of eosin in water to Indian ink, because the dye leaves the landscape clear, if non-actinic, and makes the adjustment of the cloud negative on the print very much easier. In fact, if the sky and landscape do harmonize, this method is a better way of faithfully reproducing the effect on the print than any other, and by reason of the accurate correspondence between the two negatives is very little trouble.

If clouds and landscape are on the same plate, it may happen that, although the clouds can be seen quite distinctly in the negative, they do not print out. In such a case we must resort to shading; but there is at once a danger. If any foreground objects, such as trees or masts, project up into the sky portion, it will be found almost impossible to avoid making them appear much too dark



While we are printing the sky, perhaps twice as long as the lower part of the negative in order to bring out the clouds, these parts are also being printed twice as long. This is a point that many a photographer overlooks; and pictures can be seen at almost every exhibition—even the leading exhibitions—suffering from this defect. Yet it is not difficult to prevent it by a very simple device. The back of the negative is covered with tracing paper in the usual way, and pencil work is applied to this so as to hold back these particular projecting parts of the foreground, so that were the whole printed in a straightforward way they would appear much too light. Then when we come to shade the negative, so that the sky part gets extra printing, these come down to their right depth or thereabouts—there is a fairly wide margin—while the clouds are printing out.

It must not be supposed that because the clouds were there at the time that therefore they are suitable; it by no means follows. The writer has a print which more than once has been condemned because the sky is out of keeping with the rest, and at least one "pictorial" authority has said that such a sky should not have been introduced into the picture. As a matter of fact, clouds and landscape are all on one plate, and print without any dodging, but the criticism is nevertheless well founded. They are unsuitable. There is a fine cloud form, but it is buried behind a mass of trees, while on the opposite side of the picture, where there is a considerable space which wants some decided mass in the sky

to occupy it, there is little more than a blank. It would have been better to print in a sky, which might very well have been more suitable.

When the photographer happens to see the cloud effect he wants, he should certainly lose no time in securing it. The fine masses of cumulus, which are what are most valuable to the picture-maker, nearly always move much faster than we are apt to think; and by the time the camera has been set up, focused, the screen fitted, and the plate put in, if these are done at all deliberately, the effect may have vanished. There is just one chance, and that is that on such a day the cloud forms often repeat themselves, and by waiting we may get a second opportunity, perhaps even better than the one we got at first.

Printing in clouds from separate negatives has been described so often that there is no need to refer further to it here; but it ought to be added that in all cloud photography the advantages of a backed plate are very great indeed. In fact, the user of an unbacked plate handicaps himself very much.

In developing negatives with clouds in them, we must be particularly careful not to over-develop. It must be remembered that in a sky which is to be printed out we do not need anything like the contrast that we must have in one which is to be kept white. This applies especially to negatives on color sensitive plates obtained with a light filter. Such negatives, if they are to print properly, will always seem to be much thinner than negatives on ordinary, that is to say, not color sensitive plates.—*Photography*.



# Items of Interest

TAPRELL, LOOMIS & Co., of Chicago, Ill., are always on deck when it comes to getting out new style card mounts. The enterprising professional well knows that the beauty of his work is best shown by an attractive mounting. Taprell, Loomis & Co. have styles to suit all tastes and needs. A sample will be sent on receipt of ten cents in stamps.

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THE SPRAGUE & HATHAWAY Co., of West Somerville, Mass., makers of bromide enlargements, frames, etc., have issued a very clever little pamphlet in the form of a "Diary of an Unsuccessful Photographer," that is full of wise suggestions for all photographers in this period of financial stress and storm. We believe in passing a good thing along and urge you, one and all, to write for a copy.

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HAVE YOU TRIED AMPERE PAPER the collodion matte printing out paper made by the Defender Photo Supply Co., 1332 Argo Park, Rochester N. Y.? It will be well worth your while to invest in a gross and try it out to see when it suits your individual needs. Their interesting booklet, "Money Talks," will also be of value to you. The booklet may be had for the asking.

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THE VOIGTLANDER & SOHN A. G. OPTICAL WORKS, owing to increased business, have moved their New York offices from West 23rd street to the finely equipped Brunswick building, 225 Fifth avenue, New York city. Their catalogue tells about the various lenses which may be fitted to kodaks without the addition of new shutters.

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AMERICAN BIRDS, by William Lovell Finley, illustrated from photographs by Herman T. Bohlman and the author. Published by Chas. Scribners' Sons, New York.

For the past few years the authors have been delighting the readers of magazines through-

out the United States with their charming studies of bird life. In the volume of over 200 pages profusely illustrated with various species from the tiny humming bird to the lordly eagle, there has been gathered together a vast fund of information that will be a delight and inspiration to all who are interested in the fascinating pursuit of picturing the winged dwellers of the air.

\* \* \*

THROUGH ITALY WITH CAR AND CAMERA, by Dan Fellows Platt. Published by G. P. Putnam's Sons. New York. Price, \$5.00.

This is a pleasing narrative account of a trip to various points of Italy in quest of the picturesque in art and beautiful scenery. The greatest value the photographer will find in the work is the number of illustrations of famous paintings. The personal element enters in great measure and possibly detracts somewhat from its instructive features. The book will be serviceable for anyone contemplating a similar journey.

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PHOTOGRAPHERS' ASSOCIATION OF IOWA.—The Executive Committee of the Photographers' Association of Iowa held its annual meeting on November 12, 1907, and arranged for the Eighteenth Annual Convention to be held at Davenport. The convention dates will be May 12, 13, 14, and 15, 1908. An attractive and instructive program is being prepared which is bound to please and you cannot afford to miss it.

Make a large circle around May 12th, 13th, 14th, and 15th, 1908, on your calendar. Shut up shop for a few days. Come to the convention, and you will find it money well spent.

T. Will Runkle, Secretary,  
Cedar Rapids, Iowa.

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THE PHOTOGRAPHERS' ASSOCIATION OF ILLINOIS will hold their Tenth Annual Convention,

at Joliet, Ill., May 5th, 6th, and 7th, 1908. Particulars may be had from H. W. Harper, Secretary, 407 Jefferson street, Joliet, Ill.

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NEBRASKA PHOTOGRAPHERS' ASSOCIATION, Nineteenth Annual Convention, Fremont, June 23, 24, 25, 26, 1908.

At this convention we shall adopt the school plan. Photography will be taught in all its branches. The work will be done in classes under competent instructors, and it is important that every one be on hand at the start in order to get the full benefit of all that is to be said and done.

At intervals during the sessions of this school there will be lectures by prominent people on the different phases of our profession, and every photographer who wishes to keep up with the procession should make it a point to attend.

The various classes of exhibits will receive medals as heretofore.

Alfred T. Anderson, Secretary.  
Kearney, Neb.

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AN EMERGENCY CAMERA STAND.—Very frequently the amateur photographer is called upon at a moment's notice to take a family group in the back garden, and to his disgust has not brought his tripod. The usual method of procedure is to fetch out some rickety boxes and pile them on a beer-barrel or old chair, put a book on top, and trust that the camera is steady.

A simpler, neater, and more effective method is as follows: Obtain three sticks of approximately equal length. There are plenty in

the garden; commandeer the dahlia stalks, or, failing those, use walking sticks or umbrellas with straight handles. Tie these together about four inches from the top, and set them up like a gipsy's cooking tripod. Then invert a flowerpot over the top, and you will have a firm, serviceable camera stand, ready for any emergency.

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"TRANSLUCING" PAPER.—Johann Mai has been experimenting on methods of rendering paper translucent, and recommends as the best method he has been able to find, the use of the following varnish:—

Powdered resin .....	4 ounces.
Gum elemi .....	4 "
Paraffin wax .....	2 "
Rectified spirits of turpentine...	12 "

Place in a large clean enamelled saucepan, and heat over a fire or gas stove, with constant stirring, until the mixture boils and froths up to fill the pan. Remove from the fire and allow to cool a little, then add another twelve ounces of rectified spirit of turpentine, stir thoroughly, then pour into wide-mouthed bottles, and cork well. In the melting there is a liability for the mixture to catch fire (especially if the stirring is slackened), therefore a close-fitting lid or a flat board large enough to cover the top of the pan should be kept at hand during the melting. To use, lay the prints face downward on clean blotting, and stretch with drawing pin on a board. Use a broad flat brush well charged with the varnish, and with a few sweeps quickly cover the whole back of the print, then allow to dry. If white spots appear give another coat, or even two more coats, of the varnish.

